

## REMARKS

### I. Status of Claims

Please enter the following amendments in which claims 1 and 4 are amended; claims 8 and 10 are canceled without prejudice, waiver, or disclaimer; and claims 14-31 are withdrawn from consideration. Claims 1-7, 9, and 11-31 are now pending in the present application. Consideration and allowance of the application and presently pending claims, as amended, are respectfully requested.

### II. Cancellation of Claims

Claims 8 and 10 are canceled without prejudice, waiver, or disclaimer. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the canceled subject matter to the public.

### III. The Requirement for Election of Species is Improper

#### A. Traversal of Election of Species Requirement

The Office Action alleged that claims 1-31 “are generic to a plurality of disclosed patentably distinct species” with respect to a number of different claimed features. *Office Action* at 2-4. Applicants respectfully traverse and request that the Office reconsider the requirement of election of species. According to the Patent Rules, Applicants are entitled to claim more than one species of invention in different claims. Specifically, 27 CFR 1.141(a) reads as follows:

Two or more independent and distinct inventions may no be claimed in one national application, except that more than one species of an invention, not to exceed a reasonable number, may be specifically claimed in different claims in one national application, provided the application also includes an allowable claim generic to all the claimed species and all the claims to species in excess of one are written in independent form (§ 1.75) or otherwise include all the limitations of the generic claim.

(emphasis added). The originally filed generic claim 1, for example, includes sufficiently few species that a search and examination of all of the species at one time would not impose a serious

burden on the Office. For example, in claim 1 the sacrificial polymer is recited as one “that undergoes acid-catalyzed decomposition.” This sufficiently defines the sacrificial polymer such that the Examiner can perform a search without undue burden. Similarly, the term “photoacid generator” is alone sufficient to enable the Examiner to perform a search. Even further, the claim term “photoacid generator” or PAG, is recited as being present in the claimed composition in “a catalytic amount.” Applicants believe the claim 1 in the originally-filed application does not include an unreasonable number of species, and according to 37 CFR 1.141, should be allowed to be examined.

Nevertheless, solely to advance prosecution on the merits and not for reasons of patentability, Applicants have amended claim 1 herein to include the subgenus of claim 8 with respect to the sacrificial polymer, and the subgenus of claim 10 with respect to the PAG. The amendments to claim 1 further narrow the number of species that the Examiner must search and examine even beyond the reasonable number originally presented in amended claim 1. Specifically, amended claim 1 has been amended in part as follows (by inserting the underlined portion): “a sacrificial polymer that undergoes acid-catalyzed decomposition, wherein the polymer is chosen from (1) a polycarbonate and (2) a copolymer of polynorbornene and polynorbornene carbonate, and combinations thereof...” Applicants strongly urge the Examiner to search the claimed composition of claim 1 and the sacrificial polymer of amended claim 1 *without resort to the species elected below*. The Examiner is invited to call Applicants’ counsel if Examiner wishes to discuss the traversal of the restriction and election.

The subgenus of the composition of amended claim 1 as amended presents a reasonable number of species for the Examiner to search and examine. Applicants submit that requiring Applicants to elect a species and to provide ranges of their amounts, beyond what is claimed in amended claim 1 is an unreasonable attempt by the Office to narrow the scope of protection to which Applicants are rightfully entitled. Otherwise, Applicants may be forced to file multiple divisional applications on the separate species, which will result in unfair time and expense on Applicants’ part.

In addition to the addition of a subgenus to claim 1 with respect to the sacrificial polymer, Applicants have amended claim 1 herein to also include the subgenus of claim 10 with respect to the PAG to further narrow the number of species that the Examiner must search and examine. Specifically, claim 1 has been amended in part as follows (by inserting the underlined portion): “a

catalytic amount of a photoacid generator, wherein the photoacid generator is chosen from a nucleophilic halogenide, a complex metal halide anion, and combinations thereof.” Applicants strongly urge the Examiner to search the claimed composition of claim 1 and the PAG of claim 1 ***without resort to the species elected below.*** The subgenus of the composition of claim 1 as amended presents a reasonable number of species for the Examiner to search and examine. Applicants submit that requiring Applicants to elect a species and to provide ranges of their amounts, beyond what is claimed in amended claim 1 is an unreasonable attempt by the Office to narrow the scope of protection to which Applicants are rightfully entitled. Otherwise, Applicants may be forced to file multiple divisional applications on the separate species, which will result in unfair time and expense on Applicants’ part.

Applicants wish to note for the record that the foregoing amendments are solely for the purpose of preventing undue narrowing of the claims to the exact species, and as such are not made as a condition for obtaining a patent. Applicants further submit that because these amendments are not made for substantive patentability purpose, and pursuant to *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831 (2002), no prosecution history estoppel arises from these amendments.

#### B. Election of Species Requirement (With Traverse)

With the traversal as noted above for all requirements to elect species, Applicants elect the species, as follows, keeping with the same numbering used in the Office Action.

##### 1. Election of composition

As required on page 2 of the Office Action, Applicants elect a composition that comprises 12% of a sacrificial polymer, where the sacrificial polymer is polypropylene carbonate (PPC) and 1% of a photoacid generator (PAG), where the PAG is tetrakis(pentafluorophenyl)borate-4-methylphenyl[4-(1-methylethyl)phenyl] iodonium (DPI-TPFPB). The chemical structures of PPC and DPI-TPFPB, including all bonding connections between and among chemical atoms and positions of all chemical atoms in the chemical structures is clearly depicted in FIGs. 5 and 6, and are labeled as PPC and DPI-TPFPB.

2. Election of a sacrificial polymer

As required on pages 2-3 of the Office Action, Applicants elect a sacrificial polymer, where the sacrificial polymer is polynorbornene carbonate (PNC). The chemical structure of PNC, including all bonding connections between and among chemical atoms and positions of all chemical atoms in the chemical structures is clearly depicted in FIG. 5, and is labeled as PNC.

3. Election of a photoacid generator (PAG)

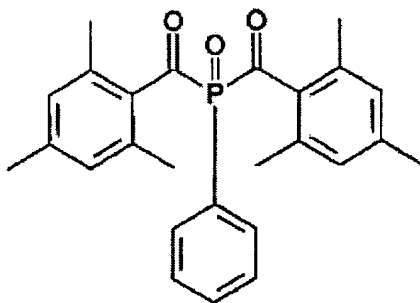
As required on page 3 of the Office Action, Applicants elect a PAG, where the PAG is tris(4-t-butylphenyl)sulfonium hexafluorophosphate (TTBPS-HFP). The chemical structure of TTBPS-HFP, including all bonding connections between and among chemical atoms and positions of all chemical atoms in the chemical structures is clearly depicted in FIG. 6, and is labeled as TTBPS-HFP.

4. Election of a polymer

As required on pages 3-4 of the Office Action, Applicants elect a polymer, where the polymer is polycyclohexanepropylene carbonate (PCPC). The chemical structure of PCPC, including all bonding connections between and among chemical atoms and positions of all chemical atoms in the chemical structures is clearly depicted in FIG. 5, and is labeled as PCPC.

5. Election of a negative tone photoinitiator

As required on page 4 of the Office Action, Applicants elect a negative tone photoinitiator, where the negative tone photoinitiator is bis(2,4,6-trimethylbenzoyl)-phenylphosphineoxide. The chemical structure of PCPC, including all bonding connections between and among chemical atoms and positions of all chemical atoms in the chemical structures is clearly depicted below:



Applicant respectfully requests that the Examiner examine the claims without resort to the election of species. If, however, the Examiner maintains the requirement of the election of species, Applicants reserve the right for election of different species other than those chosen herein in subsequent prosecution of the present application.

IV. Each of Claims 2-7 Does Not Overly Read on Any Other Claim

The Office Action states as follows:

Claims 2, 3, 4, 5, 6 and 7 are all depended on claim 1 and would have no value if they are found to be overly read on property of another claim. A double inclusion claimed embodiment is structurally invalid by itself because they are not distinct from another as required. It is now notified for the record.

*Office Action* at 5. Applicants respectfully traverse this assertion for the record. Applicants submit that each of claims 2-7 represents different features of the composition of claim 1 and each does not overly read on any other claim.

V. Amendment of Claim 4

The Office alleges that “Claim 4 containing ‘PAG’ abbreviation alone is improper.” *Office Action* at 5. Applicants respectfully traverse and submit that the term PAG is commonly understood by one of ordinary skill in the art of the claimed invention to mean “photoacid generator”. Nevertheless, to advance prosecution on the merits, Applicants have amended claim 4 to insert the full phrase “photoacid generator” and have indicated the common acronym “PAG” thereafter in parentheses. Applicants wish to note for the record that the foregoing amendment is cosmetic in nature and is not made as a condition for obtaining a patent. Applicants further submit that this amendment are non-narrowing and, pursuant to *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831 (2002), no prosecution history estoppel arises from this amendment.

VI. The Restriction Requirement is Improper

This is a full and timely response to the outstanding non-final Office action mailed August 17, 2004. The Examiner has required the Applicants to elect to prosecute one of three (3) groups of claims identified in the Office Action. In response to the restriction requirement, Applicants elect to prosecute the claims of Group I, corresponding to claims 1-13, with traverse, as set out hereafter. Applicants respectfully request, however, that the Examiner reconsider the restriction requirement.

First, in the interests of equity and fairness, applicant should be entitled to pursue different types of claims in the present application, particularly, apparatus claims and method claims, for the invention to fully protect the invention, because there is a different body of law pertaining to each of these different types of claims. The restriction requirement is therefore unfair to the applicant, because it will require the applicant to file and bear the additional cost and time delay associated with filing one or more divisional or continuing applications in order to cover each type of claim set.

Second, as provided in 35 U.S.C. § 121, restriction to one of two or more claimed inventions is proper only if the inventions are “independent and distinct.” In its discussion of the propriety of restrictions, MPEP § 803 further provides that if search and examination of two or more inventions can be made without “serious burden,” the Examiner must examine them on the merits even if the claims are directed to distinct or independent inventions.

In the present case, Groups I, II, and III, although not necessarily obvious in view of each other, are similar in subject matter. More specifically, each pertains to a composition of matter that includes a sacrificial polymer. Specifically with respect to Groups I and II, the Examiner states broadly that the materials “have acquired the separate status and searches in the art and can be supported by separate patents.” *Office Action* at 6. Applicants traverse that searching the compositions claimed in Groups I and II would impose a serious burden on the USPTO. The Examiner merely concludes that such a burden exists, but provides no reasons or evidence on the record to substantiate a separate classification, separate status in the art, or different fields of search for Groups I and II. Indeed, it appears that a search for the compositions of Groups I and II would be conducted within the *same class*. In such a situation, it clearly would not be overly burdensome on the Examiner to check for both of these allegedly “separate” inventions at the same time.

For at least the foregoing reasons, Applicants respectfully traverse the restriction requirement and request that the Examiner reconsider the restriction requirement and examine the claims of Groups I, II, and III together. Applicant expressly reserves the right to present the non-elected claims or variants thereof in continuing applications to be filed subsequent to the present application.

### **CONCLUSION**

It is believed that the foregoing amendments and additions add no new matter to the present application. Applicants respectfully request reconsideration of the restriction requirement, based upon the claim amendments and the arguments presented herein. Upon entry of the Preliminary Amendment, Applicants respectfully request that this application be allowed. If the Examiner has any questions or comments regarding Applicants response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

  
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